RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/980,845B

Source: IFW16

Date Processed by STIC: 3/22/06

ENTERED

IFW16

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              RAW SEQUENCE LISTING                    DATE: 03/22/2006
              PATENT APPLICATION:  US/09/980,845B     TIME: 09:27:50

              Input Set : D:\00-505 ST25.txt
              Output Set: N:\CRF4\03222006\I980845B.raw

       3 <110> APPLICANT: Handfield, Martin
       4        Brady, Jeannine
       5        Progulske-Fox, Ann
       6        Hillman, Jeffrey D.
       8 <120> TITLE OF INVENTION: Microbial Polynucleotides Expressed During Infection of a
Host
      10 <130> FILE REFERENCE: 00-505B
      12 <140> CURRENT APPLICATION NUMBER: 09/980,845B
C--> 13 <141> CURRENT FILING DATE: 2001-11-15
      15 <150> PRIOR APPLICATION NUMBER: 60/147,551
      16 <151> PRIOR FILING DATE: 1999-08-06
      18 <160> NUMBER OF SEQ ID NOS: 20
      20 <170> SOFTWARE: PatentIn version 3.3
      22 <210> SEQ ID NO: 1
      23 <211> LENGTH: 849
      24 <212> TYPE: DNA
      25 <213> ORGANISM: Actinobacillus actinomycetemcomitans
      28 <220> FEATURE:
      29 <221> NAME/KEY: misc_feature
      30 <222> LOCATION: (566)..(566)
      31 <223> OTHER INFORMATION: N stands for any nucleotide.
      33 <220> FEATURE:
      34 <221> NAME/KEY: misc_feature
      35 <222> LOCATION: (625)..(625)
      36 <223> OTHER INFORMATION: N stands for any nucleotide.
      38 <220> FEATURE:
      39 <221> NAME/KEY: misc_feature
      40 <222> LOCATION: (627)..(627)
      41 <223> OTHER INFORMATION: N stands for any nucleotide.
      43 <220> FEATURE:
      44 <221> NAME/KEY: misc_feature
      45 <222> LOCATION: (636)..(636)
      46 <223> OTHER INFORMATION: N stands for any nucleotide.
      48 <220> FEATURE:
      49 <221> NAME/KEY: misc_feature
      50 <222> LOCATION: (650)..(650)
      51 <223> OTHER INFORMATION: N stands for any nucleotide.
      53 <220> FEATURE:
      54 <221> NAME/KEY: misc_feature
      55 <222> LOCATION: (656)..(656)
      56 <223> OTHER INFORMATION: N stands for any nucleotide.
      58 <220> FEATURE:
      59 <221> NAME/KEY: misc_feature
      60 <222> LOCATION: (661)..(661)
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RAW SEQUENCE LISTING   DATE: 03/22/2006
PATENT APPLICATION: US/09/980,845B   TIME: 09:27:50

Input Set : D:\00-505 ST25.txt
Output Set: N:\CRF4\03222006\I980845B.raw

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 61 <223> OTHER INFORMATION: N stands for any nucleotide.
 63 <220> FEATURE:
 64 <221> NAME/KEY: misc_feature
 65 <222> LOCATION: (672)..(672)
 66 <223> OTHER INFORMATION: N stands for any nucleotide.
 68 <220> FEATURE:
 69 <221> NAME/KEY: misc_feature
 70 <222> LOCATION: (681)..(681)
 71 <223> OTHER INFORMATION: N stands for any nucleotide.
 73 <220> FEATURE:
 74 <221> NAME/KEY: misc_feature
 75 <222> LOCATION: (720)..(720)
 76 <223> OTHER INFORMATION: N stands for any nucleotide.
 78 <220> FEATURE:
 79 <221> NAME/KEY: misc_feature
 80 <222> LOCATION: (723)..(723)
 81 <223> OTHER INFORMATION: N stands for any nucleotide.
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 84 gatcgcgtaa acggtgtaac acggaaagca attgtttaat gtcggcaaaa tgcagccctg     60
 86 tggtcggttc gtccagaata tacagggttt tgcccgtatc ccgtttggag agttccgtcg    120
 88 ccagtttcac ccgttgcgct tccccgccgg acagggtggt agaggattgc cccaagcgaa    180
 90 tataagacaa gcccacgtca atcagggttt gcaatttacg cgcaatcatt ggaatggcat    240
 92 cgaaaaactc gcgcgcatct tccaccgtca tgtccagcac ctgatgaatg gttttacctt    300
 94 tgtagcggat ttccagggtt tcgcgattgt aacgcttgcc tttacattgg tcgcaaggca    360
 96 cgtacacatc gggcaggaag tgcatttcca ctttgattac gccgtcgccc tggcaggctt    420
 98 acagcgcccg ccgcgcacgt taaaactgaa acgccccggg ttataaccgc gcgcacgggc    480
100 tttcggtacg ccggcaaaca attcgcgaat cggcgtgaat acgcccgtgt aagttgcccg    540
W--> 102 gttggagcgt ggcgtgcgtc caatcnggct ttggttaata tcaatacttt atcgaaaaat    600
104 tccaaacctt taatggactt gtacngngaa acctcngcat tttctgcacn attaangcgt    660
106 nttgtgcaat anggaacaaa ntgtcgttaa tcagtgtaga atttacctta accggacacn    720
108 ccngtgatgc aggtaaataa gcccacggga atgtctaaat tgacgttttt caggttgtta    780
110 ccggaagcgc cgaacaattt gagcattttt ttcttatcaa gtgcggtacg ttttttcggt    840
112 atttcgatc                                                           849
115 <210> SEQ ID NO: 2
116 <211> LENGTH: 357
117 <212> TYPE: DNA
118 <213> ORGANISM: Actinobacillus actinomycetemcomitans
120 <400> SEQUENCE: 2
121 gatcactaag ttgttcaatc ctttcgcttg ggaatctttg tctaaatacg gtttatgttg     60
123 cattgcgtta acgtctaaat cacctttaga cactgcagtg tttggcaagg cgtagtcatg    120
125 aataaaacgt attctacgtc taagttgtat ttttcttttg ccactttcgc tgcgatttca    180
127 gccacttggt gttccggtcc tgccatcacg cccactttga ttgttgccgg ggcttctgcc    240
129 gccggtttgt ctgccggtgc ggcttccggt tttttctctt cattacaagc ccgttaaggc    300
131 gaatacggag gctaatgttg cgacgcctaa taattttttt caagttcata aaagatc       357
134 <210> SEQ ID NO: 3
135 <211> LENGTH: 886
136 <212> TYPE: DNA
137 <213> ORGANISM: Actinobacillus actinomycetemcomitans
140 <220> FEATURE:
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RAW SEQUENCE LISTING   DATE: 03/22/2006
PATENT APPLICATION: US/09/980,845B   TIME: 09:27:50

Input Set : D:\00-505 ST25.txt
Output Set: N:\CRF4\03222006\I980845B.raw

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141 <221> NAME/KEY: misc_feature
142 <222> LOCATION: (554)..(554)
143 <223> OTHER INFORMATION: N stands for any nucleotide
145 <220> FEATURE:
146 <221> NAME/KEY: misc_feature
147 <222> LOCATION: (596)..(596)
148 <223> OTHER INFORMATION: N stands for any nucleotide
150 <400> SEQUENCE: 3
151 gatcaaactg gtggcgcaag ggcagcgcgt agcaaattta cccgatattt tggtctatgc      60
153 gcgcgtcggc aacggcatgg tagggcgacg ccgtggttta aaccaagcca aagcggaatg     120
155 gcgcttattt aagctaaaac accatcttgg cattcaggga tttttatccg ggctattcac     180
157 ttttgtcctg cgttccggtg ccagattatt gccgacatca ttactgaaaa acatctatca     240
159 aacctttta agaaaataac atgatgaaat taaactgtat tttaaaaata tccggaattt      300
161 ccaccgcact ttttctagcg ggttgttcct caaattcaag tgcgccgacg caatcctctg     360
163 agcaggcgaa ttctgttacg gctgtgaatc ccactgcggt gtacagtaag ccccgcactt     420
165 tggataactt caacgattat gtgaatttct taaaaggtaa agcagcggca gaaggcgttt     480
167 ctgccgacgt attgaatgca caaaataata ttaattatat tcaaaaatcc gtggatttgg     540
W--> 169 acgatcaaca agcnggcaga attcgcaagc gtgatccaaa tgccccgccg atcatnaatt   600
171 ccgaacggca cgaccaatta cttaaatcgt gtattaacca agaataaagt agacacggca     660
173 gaagcacgtt attgggaaca attgccgcag cttgaaaatg cttcaaagaa attcagcgta     720
175 ccgaaaaatt atctgttagc cttgtggggc atggagagta gctttggcta ttatcagggc     780
177 aattacgatg tgttatccac cttagccact cttgcttttg acggacgccg tgaagcctta     840
179 ttcagcaaag aattcatcgc cgccatgaaa atgctacagc gcgatc                    886
182 <210> SEQ ID NO: 4
183 <211> LENGTH: 507
184 <212> TYPE: DNA
185 <213> ORGANISM: Actinobacillus actinomycetemcomitans
188 <220> FEATURE:
189 <221> NAME/KEY: misc_feature
190 <222> LOCATION: (4)..(4)
191 <223> OTHER INFORMATION: N stands for any nucleotide.
193 <220> FEATURE:
194 <221> NAME/KEY: misc_feature
195 <222> LOCATION: (9)..(9)
196 <223> OTHER INFORMATION: N stands for any nucleotide.
198 <220> FEATURE:
199 <221> NAME/KEY: misc_feature
200 <222> LOCATION: (21)..(21)
201 <223> OTHER INFORMATION: N stands for any nucleotide.
203 <220> FEATURE:
204 <221> NAME/KEY: misc_feature
205 <222> LOCATION: (23)..(23)
206 <223> OTHER INFORMATION: N stands for any nucleotide.
208 <220> FEATURE:
209 <221> NAME/KEY: misc_feature
210 <222> LOCATION: (29)..(29)
211 <223> OTHER INFORMATION: N stands for any nucleotide.
213 <220> FEATURE:
214 <221> NAME/KEY: misc_feature
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215 <222> LOCATION: (32)..(32)
216 <223> OTHER INFORMATION: N stands for any nucleotide.
218 <220> FEATURE:
219 <221> NAME/KEY: misc_feature
220 <222> LOCATION: (35)..(36)
221 <223> OTHER INFORMATION: N stands for any nucleotide.
223 <220> FEATURE:
224 <221> NAME/KEY: misc_feature
225 <222> LOCATION: (39)..(39)
226 <223> OTHER INFORMATION: N stands for any nucleotide.
228 <220> FEATURE:
229 <221> NAME/KEY: misc_feature
230 <222> LOCATION: (42)..(42)
231 <223> OTHER INFORMATION: N stands for any nucleotide.
233 <220> FEATURE:
234 <221> NAME/KEY: misc_feature
235 <222> LOCATION: (45)..(45)
236 <223> OTHER INFORMATION: N stands for any nucleotide.
238 <220> FEATURE:
239 <221> NAME/KEY: misc_feature
240 <222> LOCATION: (49)..(49)
241 <223> OTHER INFORMATION: N stands for any nucleotide.
243 <220> FEATURE:
244 <221> NAME/KEY: misc_feature
245 <222> LOCATION: (52)..(52)
246 <223> OTHER INFORMATION: N stands for any nucleotide.
248 <220> FEATURE:
249 <221> NAME/KEY: misc_feature
250 <222> LOCATION: (58)..(58)
251 <223> OTHER INFORMATION: N stands for any nucleotide.
253 <220> FEATURE:
254 <221> NAME/KEY: misc_feature
255 <222> LOCATION: (61)..(62)
256 <223> OTHER INFORMATION: N stands for any nucleotide.
258 <220> FEATURE:
259 <221> NAME/KEY: misc_feature
260 <222> LOCATION: (65)..(65)
261 <223> OTHER INFORMATION: N stands for any nucleotide.
263 <220> FEATURE:
264 <221> NAME/KEY: misc_feature
265 <222> LOCATION: (69)..(69)
266 <223> OTHER INFORMATION: N stands for any nucleotide.
268 <220> FEATURE:
269 <221> NAME/KEY: misc_feature
270 <222> LOCATION: (73)..(73)
271 <223> OTHER INFORMATION: N stands for any nucleotide.
273 <220> FEATURE:
274 <221> NAME/KEY: misc_feature
275 <222> LOCATION: (97)..(97)
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RAW SEQUENCE LISTING   DATE: 03/22/2006
PATENT APPLICATION: US/09/980,845B   TIME: 09:27:50

Input Set : **D:\00-505 ST25.txt**
Output Set: **N:\CRF4\03222006\I980845B.raw**

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     278 <220> FEATURE:
     279 <221> NAME/KEY: misc_feature
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     281 <223> OTHER INFORMATION: N stands for any nucleotide.
     283 <220> FEATURE:
     284 <221> NAME/KEY: misc_feature
     285 <222> LOCATION: (138)..(138)
     286 <223> OTHER INFORMATION: N stands for any nucleotide.
     288 <220> FEATURE:
     289 <221> NAME/KEY: misc_feature
     290 <222> LOCATION: (457)..(457)
     291 <223> OTHER INFORMATION: N stands for any nucleotide.
     293 <220> FEATURE:
     294 <221> NAME/KEY: misc_feature
     295 <222> LOCATION: (459)..(459)
     296 <223> OTHER INFORMATION: N stands for any nucleotide.
     298 <220> FEATURE:
     299 <221> NAME/KEY: misc_feature
     300 <222> LOCATION: (467)..(467)
     301 <223> OTHER INFORMATION: N stands for any nucleotide.
     303 <400> SEQUENCE: 4
W--> 304 ttgntaccnt agccgctgac nanaactanc angcnntgna tnatntcgna tnattaanat      60
     306 nngcnaggng cancagctta cctttgccga cggttcnctg tntgaaagcg ccattcgcaa     120
     308 agtgccggtg gaggcggnga aaattcactc acttggtgcg gaaggcaatg atgtgggatt     180
     310 gaaagcccat catggcgggt ggataaagcg ttatttttta tgtcggcaga tgcctttcct     240
     312 gcgttaaatg cgttattaga cgaaaatttt tcgtatcagg acacagcagt ttacggcgag     300
     314 aattttgtgg tttccgcgct gaatgaagat tccgtgtgtg tgggcgatat ttatcaaatc     360
     316 ggctcctgcg tggtggaggt gtcgcagccg cgtaaacctt gtgagcgctt atcgaaaaat     420
     318 accaataatc cgaacacgca acaaaccgtg tacgctncng ctggtcnggc tggtatgtgc     480
     320 cggtggtacc ccaagggggа aattcaa                                          507
     323 <210> SEQ ID NO: 5
     324 <211> LENGTH: 1087
     325 <212> TYPE: DNA
     326 <213> ORGANISM: Actinobacillus actinomycetemcomitans
     329 <220> FEATURE:
     330 <221> NAME/KEY: misc_feature
     331 <222> LOCATION: (622)..(622)
     332 <223> OTHER INFORMATION: N stands for any nucleotide.
     334 <220> FEATURE:
     335 <221> NAME/KEY: misc_feature
     336 <222> LOCATION: (642)..(642)
     337 <223> OTHER INFORMATION: N stands for any nucleotide.
     339 <220> FEATURE:
     340 <221> NAME/KEY: misc_feature
     341 <222> LOCATION: (661)..(661)
     342 <223> OTHER INFORMATION: N stands for any nucleotide.
     344 <220> FEATURE:
     345 <221> NAME/KEY: misc_feature
```

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 566,625,627,636,650,656,661,672,681,720,723
Seq#:3; N Pos. 554,596
Seq#:4; N Pos. 4,8,21,23,29,32,35,36,39,42,45,49,52,58,61,62,65,69,73,97
Seq#:4; N Pos. 102,138,457,459,467
Seq#:5; N Pos. 622,642,661,669,685,690,700
Seq#:6; N Pos. 609,614,651,685
Seq#:7; N Pos. 532,630,696,710,722,725
Seq#:8; N Pos. 538
Seq#:12; N Pos. 131,151,170,178,194,199,209
Seq#:18; Xaa Pos. 43,52,63,72,77

VERIFICATION SUMMARY   DATE: 03/22/2006
PATENT APPLICATION: **US/09/980,845B**   TIME: 09:27:51

Input Set : **D:\00-505 ST25.txt**
Output Set: **N:\CRF4\03222006\I980845B.raw**

```
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:540
M:341 Repeated in SeqNo=1
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:540
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:600
M:341 Repeated in SeqNo=5
L:451 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:600
M:341 Repeated in SeqNo=6
L:509 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:480
M:341 Repeated in SeqNo=7
L:550 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:480
L:670 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:120
M:341 Repeated in SeqNo=12
L:869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:32
M:341 Repeated in SeqNo=18
```